

REMARKS

Claims 1 to 42 are the pending claims being examined in the application, of which Claims 1, 6, 7, 14, 15, 22, 23, 28, 29, 34, 35 and 41 are independent. Claims 1 to 11, 14 to 19, 22 to 36, 38, 39 and 41 are being amended herein. Reconsideration and further examination are respectfully requested.

The Office Action refers to wording used in the claims, i.e., “such that”, “so that”, “thereby”, and contends that the wording does not require a step to be performed or limit a claim to a particular structure, and does not limit the scope of the claims. The Office Action refers to MPEP 2106, § II(C). Without conceding the correctness of the remarks made in the Office Action, the claims have been amended in most instances to remove this wording.

The Applicant acknowledges the Examiner’s return of initialed copies of the PTO-SB08 with the Office Action, which confirm that the art cited in the Information Disclosure Statement (IDS) dated December 8, 2006 has been considered by the Examiner.

The Examiner requests that Applicant “point out which of the numerous prior art [references] are pertinent or relevant to the patentability of the invention as claimed in the instant application.” The Examiner further indicates that it would be advantageous for Applicant to provide a concise explanation of why each prior art reference is being submitted and how it is understood to be relevant. The Office Action includes a quotation and references the MPEP § 609 and 37 C.F.R. § 1.98(b)(5). The quotation used in the Office Action is believed to be taken from MPEP § 609.04(a), which states in part:

Concise explanations (especially those which point out the relevant pages and lines) are helpful to the Office, particularly where documents are lengthy and complex and applicant is aware of a section that is highly

relevant to patentability or where a large number of documents are submitted and applicant is aware that one or more are highly relevant to patentability.

In response to the Examiner's request, the Applicant is not aware of any particularly relevant reference from the references cited in the December 8, 2006 IDS. The references cited in the December 8, 2006 IDS were previously-cited in co-pending U.S. patent applications. Each of the co-pending applications are identified in an attachment (referred to as "Attachment A") submitted with this paper. Attachment A identifies each co-pending application by its application serial number, title and filing date. An abstract is also provided for each application. In addition and for each of the co-pending applications, Attachment A provides a listing of the references submitted in the December 8, 2006 IDS which were cited in the co-pending application.

Turning to the rejection of the claims based on art, Claims 1 to 42 are rejected under 35 U.S.C. § 102(e)¹ or alternatively under 35 U.S.C. § 103(a) over "TuneTo.com's Community-Based Internet Music Data Streaming System". The Office Action cites the following four articles, which the Office Action contends provides a detailed explanation of the TuneTo.com system: 1) Shands, Mark, "An Exclusive Interview With Michael Weiss, TuneTo.com" (April 14, 2000), 2) Konig, Bill, "The College Music Journal Names TuneTo.com, CMJ Website of the Week (April 12, 2000), 3) Alvear, Jose, "Q&A With Tim Bratton, President of TuneTo.com" (November 23, 1999), and 4) Smotroff, Mark, "TuneTo.com Seals \$2.6 Million

¹ Since 35 U.S.C. § 102(e) concerns an application for patent and none of the references cited in the grounds for rejection are applications for patent, it is assumed that the Examiner intended to cite another section, e.g., 35 U.S.C. § 102(a). If this is not the case, the Examiner is requested to provide further clarification, should the rejection be maintained in the next Office Action.

Series A Funding”, (January 18, 2000). Reconsideration and withdrawal of the rejections are respectfully requested.

The Office Action relies on four different references to reject the claims under 35 U.S.C. § 102 rejection. It is respectfully submitted that to anticipate a claim under 35 U.S.C. § 102, a reference must teach each and every element of the claim, and that a claim is anticipated only if each and every element set forth in the claim is found in a single prior art reference. Since the Office Action fails to establish that reliance on multiple references to form a 35 U.S.C. § 102 rejection is proper, the 35 U.S.C. § 102 should be withdrawn. It is further respectfully submitted that the references when taken alone, or in combination (if such combination is even permissible, a fact that is in no way conceded), fail to render obvious the invention of the present claims. Accordingly, the 35 U.S.C. § 103(a) rejection should be withdrawn.

With reference to Claim 1, a method is recited for providing a data stream according to preferences of a community. Each member of the community has associated preferences regarding data stream content, and each member of the community has been determined to have at least one data stream content preference in common. Characteristics of the community members’ preferences are determined to provide determined characteristics, and content is selected for inclusion in an individual data stream according to the determined characteristics of the member community’s preferences regarding data stream content.

The Shands, Konig, Alvear and Smotroff articles consist of press releases which are at best cursory with respect to the topics discussed. The articles fail to provide an enabling disclosure of any of the topics discussed therein, and certainly fail to provide an enabling disclosure of the TuneTo.com system. However, in an effort to respond to the Office Action, the

grounds for rejection are discussed with reference to the articles, as best they can be understood given the information provided.

It is respectfully submitted that none of the references teach, suggest or disclose selecting content for inclusion in an individual data stream according to determined characteristics of a member community's preferences regarding data stream content, and/or selecting the content in accordance with characteristics of preferences of a community whose members are determined to have at least one preference in common. In contrast to the claimed content selection, the TuneTo.com system, as can best be understood from the description provided in the references, focuses on finding a number of pre-existing channels to be presented to a user.

Reference is made to page 4 of the Shands article, wherein the interviewee states that:

“[a]t TuneTo.com, we help listeners actually find their perfect channel by matching them up with one of the thousands of different channels that are being broadcast.”

The single-page Konig article states:

[a] nice TuneTo broadcast feature is the Preset Manager, which allows listeners to actually educate their Receivers as to which type of music and which artists they like or dislike. Registered visitors are asked to rank up to five favorite music genres including urban/rap, indie rock, metal, electronic and many others. Then visitors rate their feelings toward certain artists within a music style on a five-point scale from 'dislike' to 'one of my favorites.' Next listeners type in three favorite artists, click on a find button, and land on a page listing channels that most closely match their music preferences. To become a site member, simply fill out a user registration page requesting standard demographic information.”

Thus, from the Shands and Konig articles, the TuneTo.com system matches a user to a set of pre-existing channels. To aid a user in selecting a pre-existing channel, the Alvear article indicates that the pre-existing channels can include “community-based” channels, however the

term community based is undefined. Such a “community-based” channel may be one of the pre-existing channels presented to the user, if the system determines that the user might enjoy the programming provided by that channel. Aiding a user in finding pre-existing channels to present to a user cannot be said to teach, suggest or disclose the invention of the present claims. Nothing in the Shands, Konig and/or Alvear articles refers teaches, suggests or discloses determining characteristics of the preferences of a community whose members have been determined to have at least one preference in common, and/or selecting content for inclusion in a channel according to the determined characteristics of the community members’ preferences. The references are devoid of any teaching of how the pre-existing channels are programmed, and are thus also devoid of any teaching that such pre-existing channels made up of data streams comprising selected content as claimed.

The Smotroff article has been reviewed and is not seen to remedy the above-noted deficiencies.

None of the cited articles, either alone or in any hypothetical combination (if such combination is even permissible, which is in no way conceded), teach, suggest or disclose, selecting content for inclusion in an individual data stream according to the determined characteristics of the community member’s preferences, let alone determine characteristics of the preferences of a community whose members have been determined to have at least one preference in common and selecting content for inclusion in an individual data stream based on the determined characteristics.

For at least the reasons discussed above, the applied art, when taken individually or in any permissible combination (if one even exists, a fact that is in no way conceded by

Applicants), fails to disclose or suggest the claimed invention. Independent Claim 1, as well as each of the claims that depend therefrom, is therefore believed to be in condition for allowance.

For at least the same reasons stated in connection with Claim 1, independent Claims 6, 7, 14, 15, 22, 23, 28, 29, 34, 35 and 41, as well as the claims that depend from these claims, are believed to be in condition for allowance. Additional elements recited in these claims are also not believed to be taught, suggested or disclosed by the applied art, either alone or in any hypothetical combination (if such combination is even permissible, a point that is in no way conceded).

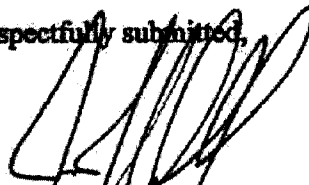
For at least the foregoing reasons, it is respectfully submitted that the stated grounds for rejection of Claims 1 to 42 fail to establish a prima facie case of anticipation under 35 U.S.C. § 102 or obviousness under 35 U.S.C. § 103(a). It is therefore respectfully submitted that the §§ 102 and 103(a) rejections should be withdrawn.

In view of the foregoing, the entire application is believed to be in condition for allowance. Should matters remain which the Examiner believes could be resolved in a telephone interview, the Examiner is requested to telephone the Applicant's undersigned attorney.

In this regard, Applicant's undersigned attorney may be reached by phone at (212) 801-6729. All correspondence should continue to be directed to the below-listed address.

The Commissioner is hereby authorized to charge any required fee in connection with the submission of this paper, any additional fees which may be required, now or in the future, or credit any overpayment to Account No. 50-1561. Please ensure that the Attorney Docket Number is referred when charging any payments or credits for this case.

Respectfully submitted,



James J. DeCarlo
Reg. No.: 36,120
Email: decarloj@gtlaw.com

Date: April 16, 2007

Customer Number 32361
GREENBERG TRAURIG, LLP
Met Life Building
200 Park Avenue, 20th Floor
New York, New York 10166
Phone: (212) 801-6279
Fax: (212) 801-6400

NY v1238374405

U.S. Appl. No.: 09/709/234

Title: INTERNET RADIO AND BROADCASTING SYSTEM

Filing Date: November 9, 2000

Attorney Docket No: 085804-019401

Abstract: Data streams are generally selected according to user preferences and transmitted to the user in general alignment with expressed preferences of the user. Such data streams may be audio, video, or other works, such as popular music or the like, or other works, including music videos. Using a large database on the order of tens or hundreds of thousands of songs, users may indicate their general or specific preferences with regards to song, artists, or albums. Other users, particularly ones who access the system often, can act as influencers or controllers of the music transmitted to the user. Any other aspects or factors that might affect the user's preferences can be taken into account, such as popular radio stations in the United States or anywhere in the world. A playlist is created that combines all of these factors, as well as any applicable statutory regulations. The playlist then serves as the basis for feeding the data streams to the user, who is then able to enjoy music generally of his or her choosing, while additionally being exposed to new music (if the user so prefers). An Internet radio is thus established using the expansive and diverse abilities present in the Internet. Each user is able to express his or her own preferences and receive music corresponding to those preferences on an on-going basis. Every individual then is like the manager of his or her own radio station and may broadcast to him- or herself the music that parallels his or her tastes. Other users may also choose to hear the same playlist as another individual, or allow that individual to influence their play list.

Patent Documents

<u>Document</u>			<u>Document</u>		
<u>Number</u>	<u>Date</u>	<u>Name</u>	<u>Number</u>	<u>Date</u>	<u>Name</u>
5,499,046	03/12/96	Schiller, et al.	5,977,964	11/02/99	Williams, et al.
5,539,635	07/23/96	Larson, Jr.	5,987,525	11/16/99	Roberts, et al.
5,592,511	01/07/97	Schoen, et al.	5,996,015	11/30/99	Day, et al.
5,616,876	07/01/97	Cluts	6,026,439	02/15/00	Chowdhury, et al.
5,661,787	08/26/97	Pocock, et al.	6,029,195	02/22/00	Herz
5,721,827	02/24/98	Logan, et al.	6,031,797	02/29/00	Van Ryzin, et al.
5,726,909	03/10/98	Krikorian	6,038,591	03/14/00	Wolfe, et al.
5,740,134	04/14/98	Peterson	6,052,717	04/18/00	Reynolds, et al.
5,758,257	05/26/98	Herz, et al.	6,192,340	02/20/01	Abecassis
5,790,423	08/04/98	Lan, et al.	6,438,579	08/20/02	Hosken
5,790,935	08/04/98	Payton	6,611,813	08/06/03	Bratton
5,809,246	09/15/98	Goldman	6,661,787	12/09/03	O'Connell, et al.
5,819,160	10/06/98	Foladare, et al.	EP 0 847 156 A2	09/12/97	Wolfe
5,864,868	01/26/99	Contois	EP 1 236 354	WO 01/35667	Boulter, et al.
5,913,040	06/15/99	Rakavy, et al.	GB 2,306,869	11/03/95	Garten
5,930,768	07/27/99	Hooban	WO 99/27681	06/03/99	Leeke, et al.
5,941,951	08/24/99	Day, et al.	WO 99/43111	08/26/99	Logan, et al.
5,945,988	08/31/99	Williams, et al.			

Non-Patent Literature Documents

Ian Goldberg, Steven D. Gribble, David Wagner, Eric A. Brewer "The Ninja Jukebox" October 14, 1999

MusicMatch Literature downloaded from web.archive.org - 7 pages total

RealNetworks Literature downloaded from web.archive.org - 16 pages total

U.S. Appl. No.: 10/177,643

Title: CONTROLLABLE TRACK SKIPPING

Filing Date: June 20, 2002

Attorney Docket No: 085804-014504

Abstract: A method, system, and computer program product allow users to skip and/or to fast-forward through media items such as songs, while limiting the extent to which skipping is allowed in order to maintain conformance with sound performance complement restrictions such as those specified by the Digital Millennium Copyright Act. If the user requests a skip that may result in a DMCA violation, the skip is disallowed and the request is denied. Playlists are constructed so that the sound recording performance complement limitations are applied to a longer time period than the period specified in the DMCA, the longer time period being defined by adding an "excess time" to the normal DMCA period. If the user attempts to skip a song or song portion that would cause the aggregated skipped amount to exceed the excess time, the skip is disallowed.

Patent Documents

<u>Document</u>			<u>Document</u>		
<u>Number</u>	<u>Date</u>	<u>Name</u>	<u>Number</u>	<u>Date</u>	<u>Name</u>
4,384,329	05/17/83	Rosenbaum, et al.	6,490,553	12/03/02	Van Thong, et al.
5,182,708	01/26/93	Ejiri	6,889,383	05/03/05	Jarman
5,371,807	12/06/94	Register, et al.	2001/0042107	11/15/01	Palm
6,009,382	12/28/99	Martino, et al.	2001/0042109	11/15/01	Bolas, et al.
6,131,082	10/10/00	Hargrave, III, et al.	2002/0002039	01/03/02	Qureshey, et al.
6,154,773	11/28/00	Roberts, et al.	2002/0004839	01/10/02	Wine, et al.
6,161,132	12/12/00	Roberts, et al.	2002/0007418	01/17/02	Hegde, et al.
6,167,369	12/26/00	Schulze	2002/0010789	01/24/02	Lord
6,222,980	04/24/01	Asai, et al.	2002/0013852	01/31/02	Janik
6,249,810	06/19/01	Kiraly	2002/0152204	10/17/02	Ortega, et al.
6,292,795	09/18/01	Peters, et al.	2003/0007507	01/09/03	Doron Rajwan, et al.
6,370,315	04/09/02	Mizuno	JP 2001202368	07/27/01	Kitaura Keiko, et al.

Non-Patent Documents

Ben J. Schafer, et al., "Recommender Systems In E-Commerce", Proceedings ACM Conference On Electronic Commerce, pp. 158-166, XP002199598, 1999

Connor Hayes, et al., Smart Radio - A Proposal, Technical Report TCD-CS-1999-24, Online! April 1999, pages 1-14, XP002279579, Trinity College Dublin, Ireland, Retrieved from the Internet:
<URL:<http://www.cs.tcd.ie/publications/tech-reports/reports.99/TCD-CS-1999-24.pdf>>, retrieved on May 7, 2004

David Nichols, et al., Recommendation And Usage In The Digital Library, Technical Report Ref. CSEG/2/1997, Online! 1997, pages 1-15, XP002279577, Retrieved from the Internet
<URL:<ftp://ftp.comp.lancs.ac.uk/pub/reports/1997/CSEG.2.97.pdf>>, retrieved on May 7, 2007

Shoshana Loeb, "Architecting Personalized Delivery Of Multimedia Information", Communications Of The ACM, vol. 25, no. 12, December 1992, pp. 39-50, XP002102709

Thomas Hoffman, et al., "Latent Class Models For Collaborative Filtering", Proceedings Of The Sixteenth International Joint Conference On Artificial Intelligence, IJCAI 99, Stockholm, Sweden, July 31 -August 6, 1999, Online! pages 688-693, XPOO2279578, Retrieved from the Internet
<URL:<http://www.cs.brown.edu/th/papers/HofmannPuzicha-IJCAI99.pdf>>, retrieved on May 7, 2004

U.S. Appl. No.: 09/846,823

Title: RELATIONSHIP DISCOVERY ENGINE

Filing Date: April 30, 2001

Attorney Docket No: 085804-014501

Abstract: A system, method, and computer program product discover relationships among items and recommend items based on the discovered relationships. The recommendations provided by the present invention are based on user profiles that take into account actual preferences of users, without requiring users to complete questionnaires. An improved binomial log likelihood ratio analysis technique is applied, to reduce adverse effects of overstatement of coincidence and predominance of best sellers. The invention may be used, for example, to generate track lists for a personalized radio station.

Patent Documents

<u>Document</u>			<u>Document</u>		
<u>Number</u>	<u>Date</u>	<u>Name</u>	<u>Number</u>	<u>Date</u>	<u>Name</u>
5,303,302	04/12/94	Burrows	6,438,579	08/20/02	Hosken
5,708,709	01/13/98	Rose	6,526,411	02/25/03	Ward
5,713,016	01/27/98	Hill	6,615,208	09/02/03	Behrens, et al.
5,764,235	06/09/98	Hunt, et al.	6,655,963	12/02/03	Horvitz, et al.
5,969,283	10/19/99	Looney, et al.	6,657,117	12/02/03	Weare, et al.
6,026,398	04/15/00	Brown, et al.	2003/0007507	01/09/03	Rajwan, et al.
6,064,980	05/16/00	Jacobi, et al.	2003/0093476	05/15/03	Syed
6,134,532	10/17/00	Lazarus, et al.	2003/0133453	07/17/03	Makishima, et al.
6,292,795	09/18/01	Peters, et al.	2003/0165200	09/04/03	Pugel
6,321,205	11/20/01	Eder	2003/0206558	11/06/03	Parkkinen, et al.
6,370,513	04/09/02	Kolawa, et al.	EP 1 050 833 A2	08/11/00	Lazarus, et al.
6,430,539	08/06/02	Lazarus, et al.			

Non-Patent Documents

Alan Griffiths, H. Claire Luckhurst and Peter Willett, "Using Interdocument Similarity Information in Document Retrieval Systems," pgs. 365 - 373, John Wiley & Sons, Inc., 1986

Ben J. Schafer, et al., "Recommender Systems In E-Commerce", Proceedings ACM Conference On Electronic Commerce, pp. 158-166, XP002199598, 1999

Brian P. McCune, Richard M. Tong, Jeffrey S. Dean, and Daniel G. Shapiro, "RUBRIC: A System for Rule-Based Information Retrieval," pgs. 440 - 445

C. J. van Rijsbergen, B.Sc., Ph.D., M.B.C.S., "Information Retrieval," Department of Computing Science - University of Glasgow [online], 1979 [retrieved on 2001-08-24] Retrieved from
<URL:http://www.dcs.gla.ac.uk/keith/preface.html> (213 pages)

Connor Hayes, et al., Smart Radio - A Proposal, Technical Report TCD-CS-1999-24, Online! April 1999, pages 1-14, XP002279579, Trinity College Dublin, Ireland, Retrieved from the Internet:
<URL:http://www.cs.tcd.ie/publications/tech-reports/reports.99/TCD-CS-1999-24.pdf>, retrieved on May 7, 2004

Cyril Cleverdon, "The Cranfield Tests On Index Language Devices," presented April 27th 1967, pgs. 47 - 59, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

Cyril W. Cleverdon and J. Mills, "The Testing Of Index Language Devices," presented February 5, 1963, Chapter 3 - Key Concepts, pgs. 98 - 110, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

David Nichols, et al., Recommendation And Usage In The Digital Library, Technical Report Ref. CSEG/2/1997, Online! 1997, pages 1-15, XP002279577, Retrieved from the Internet
<URL:ftp://ftp.comp.lancs.ac.uk/pub/reports/1997/CSEG.2.97.pdf>, retrieved on May 7, 2007

U.S. Appl. No.: 09/846,823 (Continued)

Non-Patent Documents (Continued)

E. Michael Keen, "Presenting Results of Experimental Retrieval Comparisons," Department of Information & Library Studies, University College of Wales, Aberystwyth, SY23 3AS U.K., pgs. 217 - 222

Gerard Salton and C. Buckley, "Term-Weighting Approaches In Automatic Text Retrieval," (received November 19, 1987; accepted in final form January 26, 1988), Department of Computer Science, Cornell University, Ithaca, NY

Gerard Salton and M. E. Lesk, "Computer Evaluation Of Indexing and Text Processing," pgs. 60 – 84, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

Gerard Salton and M.J. McGill, "The SMART and SIRE Experimental Retrieval Systems," pgs. 381 – 399

Gerard Salton and Michael J. McGill, "Introduction to Modern Information Retrieval," Computer Science Series, pgs. 1 -435, 1983 by McGraw-Hill, Inc., McGraw-Hill Book Company, USA

Gerard Salton, A. Wong and C.S. Yang, "A Vector Space Model for Automatic Indexing," Cornell University, pgs. 273 -280

Jean Tague-Sutcliffe, "The Pragmatics of Information Retrieval Experimentation Revisited," School of Library and Information Science, University of Western Ontario, Canada, pgs. 205 – 216

Karen Sparck Jones and Peter Willett (Editors), Chapter 3 – "Key Concepts," pgs. 85 – 92 Found in: Readings in Information Retrieval, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

Karen Sparck Jones, "Search Term Relevance Weighting Given Little Relevance Information," pgs. 329-338, (originally located in Journal of Documentation, Vol. 35, No. 1; March 1979, pgs. 30 - 48)

Lauren B. Doyle, "Indexing and Abstracting by Association – Part 1," pgs. 25 – 38, Santa Monica, CA, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, @ 1997

M. F. Porter, "An Algorithm For Suffix Stripping," Computer Laboratory, Corn Exchange Street, Cambridge, 313-316

M.E. Maron and J.L. Kuhns, "On Relevance, Probabilistic Indexing and Information Retrieval," pgs. 39 – 46, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, @ 1997

S.E Robertson, "The Probability Ranking Principle In IR," School of Library, Archive, Information Studies, University College of London, pgs. 281 – 286

S.E. Robertson and S. Walker, "Some Simple Effective Approximations to the 2 – Poisson Model for Probabilistic Weighted Retrieval," Centre for Interactive Systems Research, Department of Information Science, City University, Northampton Square, London, ECIV OHB, U.K., pgs. 345 – 354

Shoshana Loeb, "Architecting Personalized Delivery Of Multimedia Information", Communications Of The ACM, vol. 25, no. 12, December 1992, pp. 39-50, XP002102709

Thomas Hoffman, et al., "Latent Class Models For Collaborative Filtering", Proceedings Of The Sixteenth International Joint Conference On Artificial Intelligence, IJCAI 99, Stockholm, Sweden, July 31 –August 6, 1999, Online! Pages 688-693, XPOO2279578, Retrieved from the Internet<URL:[http://www.cs.brown.edu/\(th/papers/HofmannPuzicha-IJCAI99.pdf](http://www.cs.brown.edu/(th/papers/HofmannPuzicha-IJCAI99.pdf)>, retrieved on May 7, 2004

Tomek Strzalkowski, "Robust Text Processing in Automated Information Retrieval," Courant Institute of Mathematical Sciences, pgs. 317 - 322

W. B. Croft and D. J. Harper, "Using Probabilistic Models of Document Retrieval Without Relevance Information," Department of Computer & Information Science, University of Massachusetts, pgs. 339 - 344

W. J. Hutchins, "The Concept of 'Aboutness' in Subject Indexing," presented April 18, 1977, Chapter 3 - Key Concepts, pgs. 93 - 97, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

U.S. Appl. No.: 10/401,940

Title: RELATIONSHIP DISCOVERY ENGINE

Filing Date: March 26, 2003

Attorney Docket No: 085804-014507

Abstract: A system, method, and computer program product discover relationships among items and recommend items based on the discovered relationships. The recommendations provided by the present invention are based on user profiles that take into account actual preferences of users, without requiring users to complete questionnaires. An improved binomial log likelihood ratio analysis technique is applied, to reduce adverse effects of overstatement of coincidence and predominance of best sellers. The invention may be used, for example, to generate track lists for a personalized radio station.

Patent Documents

<u>Document</u>			<u>Document</u>		
<u>Number</u>	<u>Date</u>	<u>Name</u>	<u>Number</u>	<u>Date</u>	<u>Name</u>
4,384,329	05/17/83	Rosenbaum, et al.	6,526,411	02/25/03	Ward
5,182,708	01/26/93	Ejiri	6,615,208	09/02/03	Behrens, et al.
5,303,302	04/12/94	Burrows	6,655,963	12/02/03	Horvitz, et al.
5,371,807	12/06/94	Register, et al.	6,657,117	12/02/03	Weare, et al.
5,583,763	12/20/96	Atcheson, et al.	6,925,441	08/02/05	Jones, III, et al.
5,708,709	01/13/98	Rose	2001/0042107	11/15/01	Palm
5,713,016	01/27/98	Hill	2001/0042109	11/15/01	Bolas, et al.
5,764,235	06/09/98	Hunt, et al.	2001/0044855	11/22/01	Vermeire, et al.
5,969,283	10/19/99	Looney, et al.	2002/0002039	01/03/02	Qureshey, et al.
6,009,382	12/28/99	Martino, et al.	2002/0004839	01/10/02	Wine, et al.
6,026,398	04/15/00	Brown, et al.	2002/0007418	01/17/02	Hegde, et al.
6,064,980	05/16/00	Jacobi, et al.	2002/0010621	01/24/02	Bell, et al.
6,065,058	05/16/00	Hailpern, et al.	2002/0010789	01/24/02	Lord
6,131,082	10/10/00	Hargrave, III, et al.	2002/0013852	01/31/02	Janik
6,134,532	10/17/00	Lazarus, et al.	2002/0016839	02/07/02	Smith, et al.
6,154,773	11/28/00	Roberts, et al.	2002/0152204	10/17/02	Ortega, et al.
6,161,132	12/12/00	Roberts, et al.	2003/0007507	01/09/03	Rajwan, et al.
6,167,369	12/26/00	Schulze	2003/0093476	05/15/03	Syed
6,249,810	06/19/01	Kiraly	2003/0133453	07/17/03	Makishima, et al.
6,292,795	09/18/01	Peters, et al.	2003/0165200	09/04/03	Pugel
6,317,761	11/13/01	Landsman, et al.	2003/0206558	11/06/03	Parkkinen, et al.
6,321,205	11/20/01	Eder	60/144,377	07/16/99	Hosken, et al.
6,321,221	11/20/01	Bieganski	60/165,726	11/15/99	Ward, et al.
6,370,513	04/09/02	Kolawa, et al.	60/165,727	11/15/99	Ward, et al.
6,389,467	05/14/02	Eyal	60/166,039	11/17/99	Ward, et al.
6,430,539	08/06/02	Lazarus, et al.	EP 1 050 833 A2	08/11/00	Lazarus, et al.
6,438,579	08/20/02	Hosken	JP 2001202368	07/27/01	Keiko, et al.

U.S. Appl. No.: 10/401,940 (Continued)

Non-Patent Documents

Alan Griffiths, H. Claire Luckhurst and Peter Willett, "Using Interdocument Similarity Information in Document Retrieval Systems," pgs. 365 - 373, John Wiley & Sons, Inc., 1986

Ben J. Schafer, et al., "Recommender Systems In E-Commerce", Proceedings ACM Conference On Electronic Commerce, pp. 158-166, XP002199598, 1999

Brian P. McCune, Richard M. Tong, Jeffrey S. Dean, and Daniel G. Shapiro, "RUBRIC: A System for Rule-Based Information Retrieval," pgs. 440 - 445

C. J. van Rijsbergen, B.Sc., Ph.D., M.B.C.S, "Information Retrieval," Department of Computing Science - University of Glasgow [online], 1979 [retrieved on 2001-08-24] Retrieved from
<URL:<http://www.dcs.gla.ac.uk/keith/preface.html>> (213 pages)

Connor Hayes, et al., Smart Radio - A Proposal, Technical Report TCD-CS-1999-24, Online! April 1999, pages 1-14, XP002279579, Trinity College Dublin, Ireland, Retrieved from the Internet:
<URL:<http://www.cs.tcd.ie/publications/tech-reports/reports.99/TCD-CS-1999-24.pdf>>, retrieved on May 7, 2004

Cyril Cleverdon, "The Cranfield Tests On Index Language Devices," presented April 27th 1967, pgs. 47 - 59, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

Cyril W. Cleverdon and J. Mills, "The Testing Of Index Language Devices," presented February 5, 1963, Chapter 3 - Key Concepts, pgs. 98 - 110, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

David Nichols, et al., Recommendation And Usage In The Digital Library, Technical Report Ref. CSEG/2/1997, Online! 1997, pages 1-15, XP002279577, Retrieved from the Internet
<URL:<ftp://ftp.comp.lancs.ac.uk/pub/reports/1997/CSEG.2.97.pdf>>, retrieved on May 7, 2007

E. Michael Keen, "Presenting Results of Experimental Retrieval Comparisons," Department of Information & Library Studies, University College of Wales, Aberystwyth, SY23 3AS U.K., pgs. 217 - 222

Gerard Salton and C. Buckley, "Term-Weighting Approaches In Automatic Text Retrieval," (received November 19, 1987; accepted in final form January 26, 1988), Department of Computer Science, Cornell University, Ithaca, NY

Gerard Salton and M. E. Lesk, "Computer Evaluation Of Indexing and Text Processing," pgs. 60 - 84, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

Gerard Salton and M.J. McGill, "The SMART and SIRE Experimental Retrieval Systems," pgs. 381 - 399

Gerard Salton and Michael J. McGill, "Introduction to Modern Information Retrieval," Computer Science Series, pgs. 1 - 435, 1983 by McGraw-Hill, Inc., McGraw-Hill Book Company, USA

Gerard Salton, A. Wong and C.S. Yang, "A Vector Space Model for Automatic Indexing," Cornell University, pgs. 273 - 280

Jean Tague-Sutcliffe, "The Pragmatics of Information Retrieval Experimentation Revisited," School of Library and Information Science, University of Western Ontario, Canada, pgs. 205 - 216

Karen Sparck Jones and Peter Willett (Editors), Chapter 3 - "Key Concepts," pgs. 85 - 92 Found in: Readings in Information Retrieval, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

U.S. Appl. No.: 10/401,940 (Continued)

Non-Patent Documents (Continued)

Karen Sparck Jones, "Search Term Relevance Weighting Given Little Relevance Information," pgs. 329-338, (originally located in Journal of Documentation, Vol. 35, No. 1; March 1979, pgs. 30 - 48)

Lauren B. Doyle, "Indexing and Abstracting by Association - Part 1," pgs. 25 - 38, Santa Monica, CA, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, @ 1997

M. F. Porter, "An Algorithm For Suffix Stripping," Computer Laboratory, Corn Exchange Street, Cambridge, 313-316

M.E. Maron and J.L. Kuhns, "On Relevance, Probabilistic Indexing and Information Retrieval," pgs. 39 - 46, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, @ 1997

S.E Robertson, "The Probability Ranking Principle In IR," School of Library, Archive, Information Studies, University College of London, pgs. 281 - 286

S.E. Robertson and S. Walker, "Some Simple Effective Approximations to the 2 - Poisson Model for Probabilistic Weighted Retrieval," Centre for Interactive Systems Research, Department of Information Science, City University, Northampton Square, London, ECIV OHB, U.K., pgs. 345 - 354

Shoshana Loeb, "Architecting Personalized Delivery Of Multimedia Information", Communications Of The ACM, vol. 25, no. 12, December 1992, pp. 39-50, XP002102709

Thomas Hoffman, et al., "Latent Class Models For Collaborative Filtering", Proceedings Of The Sixteenth International Joint Conference On Artificial Intelligence, IJCAI 99, Stockholm, Sweden, July 31 -August 6, 1999, Online! pages 688-693, XPOO2279578, Retrieved from the Internet
<URL:[http://www.cs.brown.edu/\(th/papers/HofmannPuzicha-IJCA199.pdf](http://www.cs.brown.edu/(th/papers/HofmannPuzicha-IJCA199.pdf)>, retrieved on May 7, 2004

Tomek Strzalkowski, "Robust Text Processing in Automated Information Retrieval," Courant Institute of Mathematical Sciences, pgs. 317 - 322

W. B. Croft and D. J. Harper, "Using Probabilistic Models of Document Retrieval Without Relevance Information," Department of Computer & Information Science, University of Massachusetts, pgs. 339 - 344

W. J. Hutchins, "The Concept of 'Aboutness' in Subject Indexing," presented April 18, 1977, Chapter 3 - Key Concepts, pgs. 93 - 97, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

U.S. Appl. No.: 09/848,982

Title: TEXT EQUIVALENCING ENGINE

Filing Date: May 3, 2001

Attorney Docket No: 085804-014508

Abstract: A system, method, and computer program product perform text equivalencing. The text equivalencing is performed by modifying a string of characters by applying a set of heuristics, comparing the modified strings of characters to known strings of characters. If a match is found, the text equivalencing engine performs database update and exits. If no match is found, sub-strings are formed by grouping together frequently occurring sets of characters. An information retrieval technique is performed on the sub-strings to determine equivalent text.

Patent Documents

<u>Document</u>			<u>Document</u>		
<u>Number</u>	<u>Date</u>	<u>Name</u>	<u>Number</u>	<u>Date</u>	<u>Name</u>
3,568,156	03/02/71	Thompson	6,009,382	12/28/99	Martino, et al.
4,384,329	05/17/83	Rosenbaum, et al.	6,026,398	04/15/00	Brown, et al.
4,833,610	05/23/89	Zamora, et al.	6,035,268	03/07/00	Carus, et al.
5,062,143	10/29/91	Schmitt	6,105,022	08/15/00	Takahashi, et al.
5,182,708	01/26/93	Ejiri	6,131,082	10/10/00	Hargrave, III, et al.
5,241,674	08/31/93	Kuorsawa, et al.	6,167,369	12/26/00	Schulze
5,303,150	04/12/94	Komeda	6,185,560	02/06/01	Young, et al.
5,371,807	12/06/94	Register, et al.	6,272,456	08/07/01	de Campos
5,392,212	02/21/95	Geist	6,272,495	08/07/01	Hetherington
5,418,951	05/23/95	Damashek	6,292,795	09/18/01	Peters, et al.
5,497,488	03/05/96	Akizawa, et al.	6,314,421	11/06/01	Sharnoff, et al.
5,548,507	08/20/96	Martino, et al.	2002/0010714	01/24/02	Hetherington
5,678,054	10/14/97	Shibata	2002/0035561	03/21/02	Archer, et al.
5,706,365	01/06/98	Rangarajan, et al.	2002/0152204	10/17/02	Ortega, et al.
5,960,430	09/28/99	Haimowitz, et al.	2003/0007507	01/09/03	Rajwan, et al.
6,000,008	12/07/99	Simcoe	EP 1 050 833 A2	08/11/00	Lazarus, et al.

Non-Patent Documents

Alan Griffiths, H. Claire Luckhurst and Peter Willett, "Using Interdocument Similarity Information in Document Retrieval Systems," pgs. 365 - 373, John Wiley & Sons, Inc., 1986

Brian P. McCune, Richard M. Tong, Jeffrey S. Dean, and Daniel G. Shapiro, "RUBRIC: A System for Rule-Based Information Retrieval," pgs. 440 - 445

C. J. van Rijsbergen, B.Sc., Ph.D., M.B.C.S., "Information Retrieval," Department of Computing Science - University of Glasgow [online], 1979 [retrieved on 2001-08-24] Retrieved from <URL:<http://www.dcs.gla.ac.uk/keith/preface.html>> (213 pages)

Carl de Marcken, "The Unsupervised Acquisition of a Lexicon from Continuous Speech," Massachusetts Institute of Technology Artificial Intelligence Laboratory: Center for Biological and Computational Learning, Department of Brain and Cognitive Sciences, A.I. Memo No. 1558 and C.B.C.L. Memo No. 129, November 2001, pp. 1-27

U.S. Appl. No.: 09/848,982 (Continued)

Non-Patent Documents (Continued)

Cyril Cleverdon, "The Cranfield Tests On Index Language Devices," presented April 27th 1967, pgs. 47 - 59, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

Cyril W. Cleverdon and J. Mills, "The Testing Of Index Language Devices," presented February 5, 1963, Chapter 3 - Key Concepts, pgs. 98 - 110, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

David A. Hull and Gregory Grefenstette, "Querying Across Languages: A Dictionary-Based Approach to Multilingual Information Retrieval," pp. 484-492

E. Michael Keen, "Presenting Results of Experimental Retrieval Comparisons," Department of Information & Library Studies, University College of Wales, Aberystwyth, SY23 3AS U.K., pgs. 217 - 222

F.W. Lancaster, "MEDLARS: Report on the Evaluation of Its Operating Efficiency," pp. 223-246

Gerard Salton and C. Buckley, "Term-Weighting Approaches In Automatic Text Retrieval," (received November 19, 1987; accepted in final form January 26, 1988), Department of Computer Science, Cornell University, Ithaca, NY

Gerard Salton and M. E. Lesk, "Computer Evaluation Of Indexing and Text Processing," pgs. 60 - 84, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

Gerard Salton and M.J. McGill, "The SMART and SIRE Experimental Retrieval Systems," pgs. 381 - 399

Gerard Salton and Michael J. McGill, "Introduction to Modern Information Retrieval," Computer Science Series, pgs. 1 - 435, 1983 by McGraw-Hill, Inc., McGraw-Hill Book Company, USA

Gerard Salton, A. Wong and C.S. Yang, "A Vector Space Model for Automatic Indexing," Cornell University, pgs. 273 - 280

Gerard Salton, James Allan, Chris Buckley and Amit Singhal, "Automatic Analysis, Theme Generation, and Summarization of Machine-Readable Texts," pp. 478-483

Ian H. Witten and Eibe Frank, "Data Mining, Practical Machine Learning Tools and Techniques with JAVA Implementations", Academic Press, pp. 57-76

Jean Tague-Sutcliffe, "The Pragmatics of Information Retrieval Experimentation Revisited," School of Library and Information Science, University of Western Ontario, Canada, pgs. 205 - 216

Karen Sparck Jones and Peter Willett (Editors), Chapter 3 - "Key Concepts," pgs. 85 - 92 Found in: Readings in Information Retrieval, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

Karen Sparck Jones, G.J.F. Jones, J.T. Foote, and S.J. Young, "Experiments in Spoken Document Retrieval," pp. 493-502

Karen Sparck Jones, "Search Term Relevance Weighting Given Little Relevance Information," pgs. 329-338, (originally located in Journal of Documentation, Vol. 35, No. 1; March 1979, pgs. 30 - 48)

U.S. Appl. No.: 09/848,982 (Continued)

Non-Patent Documents (Continued)

Lauren B. Doyle, "Indexing and Abstracting by Association - Part 1," pgs. 25 - 38, Santa Monica, CA, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, @ 1997

Lisa F. Rau, "Conceptual Information Extraction and Retrieval from Natural Language Input," Artificial Intelligence Program GE Research and Development Center, Schenectady, NY 12301, pp. 527-533

M. Agosti, G. Gradenigo, P.G. Marchetti, "A Hypertext Environment for Interacting with Large Textual Databases," pp. 469-477

M. F. Porter, "An Algorithm For Suffix Stripping," Computer Laboratory, Corn Exchange Street, Cambridge, 313-316

M.E. Maron and J.L. Kuhns, "On Relevance, Probabilistic Indexing and Information Retrieval," pgs. 39 - 46, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, @ 1997

N.J. Belkin, R.N. Oddy, H.M. Brooks, "The Journal of Documentation", pp. 299-304, Volume 38, Number 2, June 1982

S.E Robertson, "The Probability Ranking Principle In IR," School of Library, Archive, Information Studies, University College of London, pgs. 281 - 286

S.E. Robertson and S. Walker, "Some Simple Effective Approximations to the 2 - Poisson Model for Probabilistic Weighted Retrieval," Centre for Interactive Systems Research, Department of Information Science, City University, Northampton Square, London, EC1V OHB, U.K., pgs. 345 - 354

Tomek Strzalkowski, "Robust Text Processing in Automated Information Retrieval," Courant Institute of Mathematical Sciences, pgs. 317 - 322

Unjung Nam, Lectures: "Mel-Frequency Cepstral Analysis," [online] [retrieved on 2001-02-02]
Retrieved from the Internet <URL:<http://www-ccrma.stanford.edu/~unjung/mylec/mfcc.html>>, pp. 1-3

W. B. Croft and D. J. Harper, "Using Probabilistic Models of Document Retrieval Without Relevance Information," Department of Computer & Information Science, University of Massachusetts, pgs. 339 - 344

W. J. Hutchins, "The Concept of 'Aboutness' in Subject Indexing," presented April 18, 1977, Chapter 3 - Key Concepts, pgs. 93 - 97, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

U.S. Appl. No.: 10/167,807**Title: INFORMATION RETRIEVAL ENGINE****Filing Date: June 11, 2002****Attorney Docket No: 085804-014503**

Abstract: A system, method, and computer program product retrieve information associated with the signals. The information retrieval can be performed on a signal by quantizing the signal, forming words, and indexing based on weights of the words. The words are formed by grouping letters together to form a number of words within predetermined threshold values. The weights of the words are determined using a binomial log likelihood ratio analysis. The present invention may be applied to identification of an unknown song.

Patent Documents

<u>Document Number</u>	<u>Date</u>	<u>Name</u>	<u>Document Number</u>	<u>Date</u>	<u>Name</u>
3,568,156	03/02/71	Thompson	6,134,532	10/17/00	Lazarus, et al.
4,384,329	05/17/83	Rosenbaum, et al.	6,167,369	12/26/00	Schulze
5,182,708	01/26/93	Ejiri	6,185,560	02/06/01	Young, et al.
5,241,674	08/31/93	Kuorsawa, et al.	6,225,546	05/01/01	Kraft, et al.
5,303,150	04/12/94	Komeda	6,252,988	06/26/01	Ho
5,371,807	12/06/94	Register, et al.	6,272,495	08/07/01	Hetherington
5,392,212	02/21/95	Geist	6,321,205	11/20/01	Eder
5,497,488	03/05/96	Akizawa, et al.	6,370,513	04/09/02	Kolawa, et al.
5,548,507	08/20/96	Martino, et al.	6,430,539	08/06/02	Lazarus, et al.
5,608,622	03/04/97	Church	6,438,579	08/20/02	Hosken
5,678,054	10/14/97	Shibata	6,526,411	02/25/03	Ward
5,713,016	01/27/98	Hill	6,614,914	09/02/03	Rhoads
5,754,938	05/19/98	Herz	6,615,208	09/02/03	Behrens, et al.
5,774,357	06/30/98	Hoffberg	6,655,963	12/02/03	Horvitz, et al.
5,883,986	03/16/99	Kopec	6,657,117	12/02/03	Weare, et al.
6,009,382	12/28/99	Martino, et al.	6,658,151	12/02/03	Lee
6,038,527	03/14/00	Renz	2002/0010714	01/24/02	Hetherington
6,047,251	04/04/00	Pon	2002/0065857	05/30/02	Michalewicz
6,105,022	08/15/00	Takahashi, et al.	2002/0152204	10/17/02	Ortega, et al.
6,131,082	10/10/00	Hargrave, III, et al.	EP 1 050 833 A2	08/11/00	Lazarus, et al.

Non-Patent Documents

Alan Griffiths, H. Claire Luckhurst and Peter Willett, "Using Interdocument Similarity Information in Document Retrieval Systems," pgs. 365 - 373, John Wiley & Sons, Inc., 1986

Ben J. Schafer, et al., "Recommender Systems In E-Commerce", Proceedings ACM Conference On Electronic Commerce, pp. 158-166, XP002199598, 1999

Brian P. McCune, Richard M. Tong, Jeffrey S. Dean, and Daniel G. Shapiro, "RUBRIC: A System for Rule-Based Information Retrieval," pgs. 440 - 445

U.S. Appl. No.: 10/167,807 (Continued)

Non-Patent Documents Continued

C. J. van Rijsbergen, B.Sc., Ph.D., M.B.C.S., "Information Retrieval," Department of Computing Science - University of Glasgow [online], 1979 [retrieved on 2001-08-24] Retrieved from
<URL:<http://www.dcs.gla.ac.uk/keith/preface.html>> (213 pages)

Carl de Marcken, "The Unsupervised Acquisition of a Lexicon from Continuous Speech," Massachusetts Institute of Technology Artificial Intelligence Laboratory: Center for Biological and Computational Learning, Department of Brain and Cognitive Sciences, A.I. Memo No. 1558 and C.B.C.L. Memo No. 129, November 2001, pp. 1-27

Connor Hayes, et al., Smart Radio - A Proposal, Technical Report TCD-CS-1999-24, Online! April 1999, pages 1-14, XP002279579, Trinity College Dublin, Ireland, Retrieved from the Internet:
<URL:<http://www.cs.tcd.ie/publications/tech-reports/reports.99/TCD-CS-1999-24.pdf>>, retrieved on May 7, 2004

Cyril Cleverdon, "The Cranfield Tests On Index Language Devices," presented April 27th 1967, pgs. 47 - 59, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

Cyril W. Cleverdon and J. Mills, "The Testing Of Index Language Devices," presented February 5, 1963, Chapter 3 - Key Concepts, pgs. 98 - 110, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

David A. Hull and Gregory Grefenstette, "Querying Across Languages: A Dictionary-Based Approach to Multilingual Information Retrieval," pp. 484-492

David Nichols, et al., Recommendation And Usage In The Digital Library, Technical Report Ref. CSEG/2/1997, Online! 1997, pages 1-15, XP002279577, Retrieved from the Internet
<URL:<ftp://ftp.comp.lancs.ac.uk/pub/reports/1997/CSEG.2.97.pdf>>, retrieved on May 7, 2007

E. Michael Keen, "Presenting Results of Experimental Retrieval Comparisons," Department of Information & Library Studies, University College of Wales, Aberystwyth, SY23 3AS U.K., pgs. 217 - 222

F.W. Lancaster, "MEDLARS: Report on the Evaluation of Its Operating Efficiency," pp. 223-246

Gerard Salton and C. Buckley, "Term-Weighting Approaches In Automatic Text Retrieval," (received November 19, 1987; accepted in final form January 26, 1988), Department of Computer Science, Cornell University, Ithaca, NY

Gerard Salton and M. E. Lesk, "Computer Evaluation Of Indexing and Text Processing," pgs. 60 - 84, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

Gerard Salton and M.J. McGill, "The SMART and SIRE Experimental Retrieval Systems," pgs. 381 - 399

Gerard Salton and Michael J. McGill, "Introduction to Modern Information Retrieval," Computer Science Series, pgs. 1 - 435, 1983 by McGraw-Hill, Inc., McGraw-Hill Book Company, USA

Gerard Salton, A. Wong and C.S. Yang, "A Vector Space Model for Automatic Indexing," Cornell University, pgs. 273 - 280

Gerard Salton, James Allan, Chris Buckley and Amit Singhal, "Automatic Analysis, Theme Generation, and Summarization of Machine-Readable Texts," pp. 478-483

U.S. Appl. No.: 10/167,807 (Continued)**Non-Patent Documents (Continued)**

Ian H. Witten and Eibe Frank, "Data Mining, Practical Machine Learning Tools and Techniques with JAVA Implementations", Academic Press, pp. 57-76

Jean Tague-Sutcliffe, "The Pragmatics of Information Retrieval Experimentation Revisited," School of Library and Information Science, University of Western Ontario, Canada, pgs. 205 - 216

Karen Sparck Jones and Peter Willett (Editors), Chapter 3 - "Key Concepts," pgs. 85 - 92 Found in: Readings in Information Retrieval, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

Karen Sparck Jones, G.J.F. Jones, J.T. Foote, and S.J. Young, "Experiments in Spoken Document Retrieval," pp. 493-502

Karen Sparck Jones, "Search Term Relevance Weighting Given Little Relevance Information," pgs. 329-338, (originally located in Journal of Documentation, Vol. 35, No. 1; March 1979, pgs. 30 - 48)

Lauren B. Doyle, "Indexing and Abstracting by Association - Part 1," pgs. 25 - 38, Santa Monica, CA, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, @ 1997

Lisa F. Rau, "Conceptual Information Extraction and Retrieval from Natural Language Input," Artificial Intelligence Program GE Research and Development Center, Schenectady, NY 12301, pp. 527-533

M. Agosti, G. Gradenigo, P.G. Marchetti, "A Hypertext Environment for Interacting with Large Textual Databases," pp. 469-477

M.E. Maron and J.L. Kuhns, "On Relevance, Probabilistic Indexing and Information Retrieval," pgs. 39 - 46, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, @ 1997

N.J. Belkin, R.N. Oddy, H.M. Brooks, "The Journal of Documentation", pp. 299-304, Volume 38, Number 2, June 1982

S.E. Robertson, "The Probability Ranking Principle In 1R," School of Library, Archive, Information Studies, University College of London, pgs. 281 - 286

S.E. Robertson and S. Walker, "Some Simple Effective Approximations to the 2 - Poisson Model for Probabilistic Weighted Retrieval," Centre for Interactive Systems Research, Department of Information Science, City University, Northampton Square, London, EC1V OHB, U.K., pgs. 345 - 354

Shoshana Loeb, "Architecting Personalized Delivery Of Multimedia Information", Communications Of The ACM, vol. 25, no. 12, December 1992, pp. 39-50, XP002102709

Thomas Hoffman, et al., "Latent Class Models For Collaborative Filtering", Proceedings Of The Sixteenth International Joint Conference On Artificial Intelligence, IJCAI 99, Stockholm, Sweden, July 31 - August 6, 1999, Online! pages 688-693, XPOO2279578, Retrieved from the Internet <URL:[http://www.cs.brown.edu/\(th/papers/HofmannPuzicha-IJCAI99.pdf](http://www.cs.brown.edu/(th/papers/HofmannPuzicha-IJCAI99.pdf)>, retrieved on May 7, 2004

Tomek Strzalkowski, "Robust Text Processing in Automated Information Retrieval," Courant Institute of Mathematical Sciences, pgs. 317 - 322

Unjung Nam, Lectures: "Mel-Frequency Cepstral Analysis", [online] [retrieved on 2001-02-02] Retrieved from the Internet <URL:<http://www-ccrma.stanford.edu/~unjung/mylec/mfcc.html>>, pp. 1-3

W. J. Hutchins, "The Concept of 'Aboutness' in Subject Indexing," presented April 18, 1977, Chapter 3 - Key Concepts, pgs. 93 - 97, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

U.S. Appl. No.: 10/004,278

Title: CONTENT-RELATED WALLPAPER

Filing Date: October 30, 2001

Attorney Docket No: 085804-014001

Abstract: Improved techniques for enhancing, associating, and linking various sources of metadata for music files, to allow integration of commercially generated metadata with user-entered metadata, and to ensure that metadata provided to the user is of the highest quality and accuracy available, even when the metadata comes from disparate sources having different levels of credibility. The invention further provides improved techniques for identifying approximate matches when querying metadata databases, and also provides improved techniques for accepting user submissions of metadata, for categorizing user submissions according to relative credibility, and for integrating user submissions with existing metadata.

Patent Documents

<u>Document Number</u>	<u>Date</u>	<u>Name</u>
6,292,795	09/18/01	Peters, et al.
6,505,203	01/07/03	Levy
6,587,127	07/01/03	Leeke
2002/0082901	06/27/02	Dunning
2003/0007507	01/09/03	Rajwan, et al.

Non-Patent Documents

Ben J. Schafer, et al., "Recommender Systems In E-Commerce", Proceedings ACM Conference On Electronic Commerce, pp. 158-166, XP002199598, 1999

Connor Hayes, et al., Smart Radio – A Proposal, Technical Report TCD-CS-1999-24, Online! April 1999, pages 1-14, XP002279579, Trinity College Dublin, Ireland, Retrieved from the Internet: <URL:<http://www.cs.tcd.ie/publications/tech-reports/reports.99/TCD-CS-1999-24.pdf>>, retrieved on May 7, 2004

David Nichols, et al., Recommendation And Usage In The Digital Library, Technical Report Ref. CSEG/2/1997, Online! 1997, pages 1-15, XP002279577, Retrieved from the Internet <URL:<ftp://ftp.comp.lancs.ac.uk/pub/reports/1997/CSEG.2.97.pdf>>, retrieved on May 7, 2007

Shoshana Loeb, "Architecting Personalized Delivery Of Multimedia Information", Communications Of The ACM, vol. 25, no. 12, December 1992, pp. 39-50, XP002102709

Thomas Hoffman, et al., "Latent Class Models For Collaborative Filtering", Proceedings Of The Sixteenth International Joint Conference On Artificial Intelligence, IJCAI 99, Stockholm, Sweden, July 31 -August 6, 1999, Online! pages 688-693, XPOO2279578, Retrieved from the Internet <URL:[http://www.cs.brown.edu/\(th/papers/HofmannPuzicha-IJCAI99.pdf](http://www.cs.brown.edu/(th/papers/HofmannPuzicha-IJCAI99.pdf)>, retrieved on May 7, 2004

U.S. Appl. No.: 10/406,799

Title: ASSOCIATING AND LINKING COMPACT DISC METADATA

Filing Date: April 2, 2003

Attorney Docket No: 085804-014401

Abstract: Improved techniques for enhancing, associating, and linking various sources of metadata for music files, to allow integration of commercially generated metadata with user-entered metadata, and to ensure that metadata provided to the user is of the highest quality and accuracy available, even when the metadata comes from disparate sources having different levels of credibility. The invention further provides improved techniques for identifying approximate matches when querying metadata databases, and also provides improved techniques for accepting user submissions of metadata, for categorizing user submissions according to relative credibility, and for integrating user submissions with existing metadata.

Patent Documents

<u>Document</u>			<u>Document</u>		
<u>Number</u>	<u>Date</u>	<u>Name</u>	<u>Number</u>	<u>Date</u>	<u>Name</u>
5,950,189	09/07/99	Cohen	2001/0044855	11/22/01	Vermeire, et al.
5,969,283	10/19/99	Looney, et al.	2002/0002039	01/03/02	Qureshey, et al.
6,026,398	04/15/00	Brown, et al.	2002/0004839	01/10/02	Wine, et al.
6,061,680	05/09/00	Scherf, et al.	2002/0007418	01/17/02	Hegde, et al.
6,064,980	05/16/00	Jacobi, et al.	2002/0010621	01/24/02	Bell, et al.
6,065,058	05/16/00	Hailpern, et al.	2002/0010789	01/24/02	Lord
6,154,773	11/28/00	Roberts, et al.	2002/0013852	01/31/02	Janik
6,161,132	12/12/00	Roberts, et al.	2002/0016839	02/07/02	Smith, et al.
6,249,810	06/19/01	Kiraly	2002/0099696	07/25/02	Prince
6,263,313	07/17/01	Milsted	2002/0099737	07/25/02	Porter
6,292,795	09/18/01	Peters, et al.	2003/0007507	01/09/03	Rajwan, et al.
6,317,761	11/13/01	Landsman, et al.	2003/0135513	07/17/03	Quinn, et al.
6,532,477	03/11/03	Tang	2003/0182139	09/25/03	Harris
2001/0005823	06/18/01	Fischer	EP 1 050 833 A2	08/11/00	Lazarus, et al.
2001/0042107	11/15/01	Palm	EP 1 050 833 A2	08/11/00	Lazarus, et al.
2001/0042109	11/15/01	Bolas, et al.			

Non-Patent Documents

Alan Griffiths, H. Claire Luckhurst and Peter Willett, "Using Interdocument Similarity Information in Document Retrieval Systems," pgs. 365 - 373, John Wiley & Sons, Inc., 1986

Brian P. McCune, Richard M. Tong, Jeffrey S. Dean, and Daniel G. Shapiro, "RUBRIC: A System for Rule-Based Information Retrieval," pgs. 440 - 445

C. J. van Rijsbergen, B.Sc., Ph.D., M.B.C.S., "Information Retrieval," Department of Computing Science - University of Glasgow [online], 1979 [retrieved on 2001-08-24] Retrieved from <URL:<http://www.dcs.gla.ac.uk/keith/preface.html>> (213 pages)

Cyril Cleverdon, "The Cranfield Tests On Index Language Devices," presented April 27th 1967, pgs. 47 - 59, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

U.S. Appl. No.: 10/406,799 (Continued)**Non-Patent Documents (Continued)**

Cyril W. Cleverdon and J. Mills, "The Testing Of Index Language Devices," presented February 5, 1963, Chapter 3 - Key Concepts, pgs. 98 - 110, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

E. Michael Keen, "Presenting Results of Experimental Retrieval Comparisons," Department of Information & Library Studies, University College of Wales, Aberystwyth, SY23 3AS U.K., pgs. 217 - 222

Gerard Salton and C. Buckley, "Term-Weighting Approaches In Automatic Text Retrieval," (received November 19, 1987; accepted in final form January 26, 1988), Department of Computer Science, Cornell University, Ithaca, NY

Gerard Salton and M. E. Lesk, "Computer Evaluation Of Indexing and Text Processing," pgs. 60 - 84, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

Gerard Salton and M.J. McGill, "The SMART and SIRE Experimental Retrieval Systems," pgs. 381 - 399

Gerard Salton and Michael J. McGill, "Introduction to Modern Information Retrieval," Computer Science Series, pgs. 1 - 435, 1983 by McGraw-Hill, Inc., McGraw-Hill Book Company, USA

Gerard Salton, A. Wong and C.S. Yang, "A Vector Space Model for Automatic Indexing," Cornell University, pgs. 273 - 280

Jean Tague-Sutcliffe, "The Pragmatics of Information Retrieval Experimentation Revisited," School of Library and Information Science, University of Western Ontario, Canada, pgs. 205 - 216

Karen Sparck Jones and Peter Willett (Editors), Chapter 3 - "Key Concepts," pgs. 85 - 92 Found in: Readings in Information Retrieval, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

Karen Sparck Jones, "Search Term Relevance Weighting Given Little Relevance Information," pgs. 329-338, (originally located in Journal of Documentation, Vol. 35, No. 1; March 1979, pgs. 30 - 48)

Lauren B. Doyle, "Indexing and Abstracting by Association - Part 1," pgs. 25 - 38, Santa Monica, CA, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, @ 1997

M. F. Porter, "An Algorithm For Suffix Stripping," Computer Laboratory, Corn Exchange Street, Cambridge, 313-316

M.E. Maron and J.L. Kuhns, "On Relevance, Probabilistic Indexing and Information Retrieval," pgs. 39 - 46, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, @ 1997

S.E. Robertson, "The Probability Ranking Principle In IR," School of Library, Archive, Information Studies, University College of London, pgs. 281 - 286

S.E. Robertson and S. Walker, "Some Simple Effective Approximations to the 2 - Poisson Model for Probabilistic Weighted Retrieval," Centre for Interactive Systems Research, Department of Information Science, City University, Northampton Square, London, EC1V OHB, U.K., pgs. 345 - 354

Tomek Strzalkowski, "Robust Text Processing in Automated Information Retrieval," Courant Institute of Mathematical Sciences, pgs. 317 - 322

W. B. Croft and D. J. Harper, "Using Probabilistic Models of Document Retrieval Without Relevance Information," Department of Computer & Information Science, University of Massachusetts, pgs. 339 - 344

W. J. Hutchins, "The Concept of 'Aboutness' in Subject Indexing," presented April 18, 1977, Chapter 3 - Key Concepts, pgs. 93 - 97, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

U.S. Appl. No.: 10/132,974

Title: METHOD FOR THE REAL-TIME DISTRIBUTION OF STREAMING DATA ON A NETWORK

Filing Date: April 25, 2002

Attorney Docket No: 085804-020500

Abstract: A method for sampling of streaming data for distribution on a network (e.g., the Internet) includes receiving the streaming data (which includes periodically updated information items) from a streaming data source. The periodically updated information items of the streaming data are subsequently sampled using a sampling process based on a total update rate of the streaming data (U_a) and a capacity of the network (C), thereby creating a sampled data stream. Alternatively, the periodically updated information items of the streaming data can be sampled using a sampling process that is also based on the importance (K_{qmin}) of each of the periodically updated information items and the update rate (U_q) of each of the periodically updated information items to create the sampled data stream. The sampled data stream is then distributed on the network (e.g., the Internet or a private area network).

Patent Documents

<u>Document Number</u>	<u>Date</u>	<u>Name</u>
5,675,786	10/07/97	McKed, et al.
5,872,921	02/16/99	Zahariev, et al.
6,557,026	04/29/03	Stephens, Jr.
6,725,446	04/20/04	Hahn, et al.
6,741,980	05/25/04	Langseth, et al.
2001/0055276	12/27/01	Rogers, et al.
2002/0056004	05/09/02	Smith, et al.
2002/0129123	09/12/02	Johnson, et al.
2002/0175941	11/28/02	Hand, et al.
2003/0002608	01/02/03	Glenn, et al.
2003/0083871	05/01/03	Foote, et al.
2003/0139989	07/24/03	Churquina
WO 2001/33379 A1	10/27/00	Dey
WO 2001/54323 A2	01/17/01	Hunt, et al.
WO 2002/42862 A2	05/30/02	Evans, et al.

U.S. Appl. No.: 11/117,620**Title: FILE SPLITTING, SCALABLE CODING, AND ASYNCHRONOUS TRANSMISSION
IN STREAMED DATA TRANSFER****Filing Date: April 28, 2005****Attorney Docket No: 085804-014106**

Abstract: Files are divided into parts and at least some of the parts are transmitted to a client using a communication channel. At least some of the transmitted parts are cached locally. This allows subsequent streaming playback of the file while using less bandwidth by transmitting the part of the file that hasn't been cached, and combining the cached parts with the transmitted parts. In some embodiments, files may be represented at a low quality level by a first data set, and at higher quality levels with additional data sets. Data sets are cached locally, so that during subsequent streaming playback of the file, the quality level of the playback may be improved by sending additional data sets using bandwidth that would otherwise be dedicated to transmitting the cached data sets.

Patent Documents

<u>Document Number</u>	<u>Date</u>	<u>Name</u>	<u>Document Number</u>	<u>Date</u>	<u>Name</u>
4,384,329	05/17/83	Rosenbaum, et al.	2001/0042109	11/15/01	Bolas, et al.
5,182,708	01/26/93	Ejiri	2001/0044855	11/22/01	Vermeire, et al.
5,303,302	04/12/94	Burrows	2002/0002039	01/03/02	Qureshey, et al.
5,371,807	12/06/94	Register, et al.	2002/0004839	01/10/02	Wine, et al.
5,708,709	01/13/98	Rose	2002/0007418	01/17/02	Hegde, et al.
5,764,235	06/09/98	Hunt, et al.	2002/0010621	01/24/02	Bell, et al.
5,898,833	04/27/99	Kidder	2002/0010789	01/24/02	Lord
5,930,526	07/27/99	Iverson	2002/0013852	01/31/02	Janik
5,969,283	10/19/99	Looney, et al.	2002/0016839	02/07/02	Smith, et al.
6,009,382	12/28/99	Martino, et al.	2002/0152204	10/17/02	Ortega, et al.
6,064,980	05/16/00	Jacobi, et al.	2003/0007507	01/09/03	Rajwan, et al.
6,065,058	05/16/00	Hailpern, et al.	2003/0093476	05/15/03	Syed
6,131,082	10/10/00	Hargrave, III, et al.	2003/0133453	07/17/03	Makishima, et al.
6,154,773	11/28/00	Roberts, et al.	2003/0165200	09/04/03	Pugel
6,161,132	12/12/00	Roberts, et al.	2003/0206558	11/06/03	Parkkinen, et al.
6,167,369	12/26/00	Schulze	EP 01/73639	05/03/86	Handleman
6,249,810	06/19/01	Kiraly	EP 1 050 833 A2	08/11/00	Lazarus, et al.
6,292,795	09/18/01	Peters, et al.	JP 2001202368	07/27/01	Keiko, et al.
6,317,761	11/13/01	Landsman, et al.	WO 2000/31964	06/02/00	Jandel, et al.
2001/0042107	11/15/01	Palm	WO 2001/73639 A1	10/04/01	McEwan, et al.

Non-Patent Documents

Alan Griffiths, H. Claire Luckhurst and Peter Willett, "Using Interdocument Similarity Information in Document Retrieval Systems," pgs. 365 - 373, John Wiley & Sons, Inc., 1986

Ben J. Schafer, et al., "Recommender Systems In E-Commerce", Proceedings ACM Conference On Electronic Commerce, pp. 158-166, XP002199598, 1999

U.S. Appl. No.: 11/117,620 (Continued)

Non-Patent Documents (Continued)

Brian P. McCune, Richard M. Tong, Jeffrey S. Dean, and Daniel G. Shapiro, "RUBRIC: A System for Rule-Based Information Retrieval," pgs. 440 - 445

C. J. van Rijsbergen, B.Sc., Ph.D., M.B.C.S, "Information Retrieval," Department of Computing Science - University of Glasgow [online], 1979 [retrieved on 2001-08-24] Retrieved from
<URL:<http://www.dcs.gla.ac.uk/keith/preface.html>> (213 pages)

Connor Hayes, et al., Smart Radio - A Proposal, Technical Report TCD-CS-1999-24, Online! April 1999, pages 1-14, XP002279579, Trinity College Dublin, Ireland, Retrieved from the Internet:
<URL:<http://www.cs.tcd.ie/publications/tech-reports/reports.99/TCD-CS-1999-24.pdf>>, retrieved on May 7, 2004

Cyril Cleverdon, "The Cranfield Tests On Index Language Devices," presented April 27th 1967, pgs. 47 - 59, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

Cyril W. Cleverdon and J. Mills, "The Testing Of Index Language Devices," presented February 5, 1963, Chapter 3 - Key Concepts, pgs. 98 - 110, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

David Nichols, et al., Recommendation And Usage In The Digital Library, Technical Report Ref. CSEG/2/1997, Online! 1997, pages 1-15, XP002279577, Retrieved from the Internet
<URL:<ftp://ftp.comp.lancs.ac.uk/pub/reports/1997/CSEG.2.97.pdf>>, retrieved on May 7, 2007

E. Michael Keen, "Presenting Results of Experimental Retrieval Comparisons," Department of Information & Library Studies, University College of Wales, Aberystwyth, SY23 3AS U.K., pgs. 217 - 222

Gerard Salton and C. Buckley, "Term-Weighting Approaches In Automatic Text Retrieval," (received November 19, 1987; accepted in final form January 26, 1988), Department of Computer Science, Cornell University, Ithaca, NY

Gerard Salton and M. E. Lesk, "Computer Evaluation Of Indexing and Text Processing," pgs. 60 - 84, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

Gerard Salton and M.J. McGill, "The SMART and SIRE Experimental Retrieval Systems," pgs. 381 - 399

Gerard Salton and Michael J. McGill, "Introduction to Modern Information Retrieval," Computer Science Series, pgs. 1 - 435, 1983 by McGraw-Hill, Inc., McGraw-Hill Book Company, USA

Gerard Salton, A. Wong and C.S. Yang, "A Vector Space Model for Automatic Indexing," Cornell University, pgs. 273 - 280

Jean Tague-Sutcliffe, "The Pragmatics of Information Retrieval Experimentation Revisited," School of Library and Information Science, University of Western Ontario, Canada, pgs. 205 - 216

Karen Sparck Jones and Peter Willett (Editors), Chapter 3 - "Key Concepts," pgs. 85 - 92 Found in: Readings in Information Retrieval, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

Karen Sparck Jones, "Search Term Relevance Weighting Given Little Relevance Information," pgs. 329-338, (originally located in Journal of Documentation, Vol. 35, No. 1; March 1979, pgs. 30 - 48)

Lauren B. Doyle, "Indexing and Abstracting by Association - Part 1," pgs. 25 - 38, Santa Monica, CA, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, @ 1997

U.S. Appl. No.: 11/117,620 (Continued)**Non-Patent Documents (Continued)**

M. F. Porter, "An Algorithm For Suffix Stripping," Computer Laboratory, Corn Exchange Street, Cambridge, 313-316

M.E. Maron and J.L. Kuhns, "On Relevance, Probabilistic Indexing and Information Retrieval," pgs. 39 - 46, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, @ 1997

S.E Robertson, "The Probability Ranking Principle In IR," School of Library, Archive, Information Studies, University College of London, pgs. 281 - 286

S.E. Robertson and S. Walker, "Some Simple Effective Approximations to the 2 - Poisson Model for Probabilistic Weighted Retrieval," Centre for Interactive Systems Research, Department of Information Science, City University, Northampton Square, London, EC1V OHB, U.K., pgs. 345 - 354

Shoshana Loeb, "Architecting Personalized Delivery Of Multimedia Information", Communications Of The ACM, vol. 25, no. 12, December 1992, pp. 39-50, XP002102709

Thomas Hoffman, et al., "Latent Class Models For Collaborative Filtering", Proceedings Of The Sixteenth International Joint Conference On Artificial Intelligence, IJCAI 99, Stockholm, Sweden, July 31 -August 6, 1999, Online! pages 688-693, XPOO2279578, Retrieved from the Internet
<URL:[http://www.cs.brown.edu/\(th/papers/HofmannPuzicha-IJCAI99.pdf](http://www.cs.brown.edu/(th/papers/HofmannPuzicha-IJCAI99.pdf)>, retrieved on May 7, 2004

Tomek Strzalkowski, "Robust Text Processing in Automated Information Retrieval," Courant Institute of Mathematical Sciences, pgs. 317 - 322

W. B. Croft and D. J. Harper, "Using Probabilistic Models of Document Retrieval Without Relevance Information," Department of Computer & Information Science, University of Massachusetts, pgs. 339 - 344

W. J. Hutchins, "The Concept of 'Aboutness' in Subject Indexing," presented April 18, 1977, Chapter 3 - Key Concepts, pgs. 93 - 97, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

U.S. Appl. No.: 10/291,210**U.S. Patent No.: 7,024,485****Title: SYSTEM FOR CONTROLLING AND ENFORCING PLAYBACK RESTRICTIONS FOR A MEDIA FILE BY SPLITTING THE MEDIA FILE INTO USABLE AND UNUSABLE PORTIONS FOR PLAYBACK****Filing Date: November 8, 2002****Issue Date: April 4, 2006****Attorney Docket No: 085804-014102**

Abstract: Files are divided into parts and at least some of the parts are transmitted to a client using a communication channel. At least some of the transmitted parts are cached locally. This allows subsequent streaming playback of the file while using less bandwidth by transmitting the part of the file that hasn't been cached, and combining the cached parts with the transmitted parts. In some embodiments, files may be represented at a low quality level by a first data set, and at higher quality levels with additional data sets. Data sets are cached locally, so that during subsequent streaming playback of the file, the quality level of the playback may be improved by sending additional data sets using bandwidth that would otherwise be dedicated to transmitting the cached data sets.

Patent Documents

<u>Document Number</u>	<u>Date</u>	<u>Name</u>	<u>Document Number</u>	<u>Date</u>	<u>Name</u>
4,384,329	05/17/83	Rosenbaum, et al.	2001/0042109	11/15/01	Bolas, et al.
5,182,708	01/26/93	Ejiri	2001/0044855	11/22/01	Vermeire, et al.
5,303,302	04/12/94	Burrows	2002/0002039	01/03/02	Qureshey, et al.
5,371,807	12/06/94	Register, et al.	2002/0004839	01/10/02	Wine, et al.
5,708,709	01/13/98	Rose	2002/0007418	01/17/02	Hegde, et al.
5,764,235	06/09/98	Hunt, et al.	2002/0010621	01/24/02	Bell, et al.
5,969,283	10/19/99	Looney, et al.	2002/0010789	01/24/02	Lord
6,009,382	12/28/99	Martino, et al.	2002/0013852	01/31/02	Janik
6,064,980	05/16/00	Jacobi, et al.	2002/0016839	02/07/02	Smith, et al.
6,065,058	05/16/00	Hailpern, et al.	2002/0152204	10/17/02	Ortega, et al.
6,131,082	10/10/00	Hargrave, III, et al.	2003/0007507	01/09/03	Rajwan, et al.
6,154,773	11/28/00	Roberts, et al.	2003/0093476	05/15/03	Syed
6,161,132	12/12/00	Roberts, et al.	2003/0133453	07/17/03	Makishima, et al.
6,167,369	12/26/00	Schulze	2003/0165200	09/04/03	Pugel
6,249,810	06/19/01	Kiraly	2003/0206558	11/06/03	Parkkinen, et al.
6,292,795	09/18/01	Peters, et al.	EP 1 050 833 A2	08/11/00	Lazarus, et al.
6,317,761	11/13/01	Landsman, et al.	JP 2001202368	07/27/01	Keiko, et al.
2001/0042107	11/15/01	Palm			

U.S. Appl. No.: 10/291,210 (Continued)

Non-Patent Documents

Alan Griffiths, H. Claire Luckhurst and Peter Willett, "Using Interdocument Similarity Information in Document Retrieval Systems," pgs. 365 - 373, John Wiley & Sons, Inc., 1986

Ben J. Schafer, et al., "Recommender Systems In E-Commerce", Proceedings ACM Conference On Electronic Commerce, pp. 158-166, XP002199598, 1999

Brian P. McCune, Richard M. Tong, Jeffrey S. Dean, and Daniel G. Shapiro, "RUBRIC: A System for Rule-Based Information Retrieval," pgs. 440 - 445

C. J. van Rijsbergen, B.Sc., Ph.D., M.B.C.S, "Information Retrieval," Department of Computing Science - University of Glasgow [online], 1979 [retrieved on 2001-08-24] Retrieved from
<URL:<http://www.dcs.gla.ac.uk/keith/preface.html>> (213 pages)

Connor Hayes, et al., Smart Radio - A Proposal, Technical Report TCD-CS-1999-24, Online! April 1999, pages 1-14, XP002279579, Trinity College Dublin, Ireland, Retrieved from the Internet:
<URL:<http://www.cs.tcd.ie/publications/tech-reports/reports.99/TCD-CS-1999-24.pdf>>, retrieved on May 7, 2004

Cyril Cleverdon, "The Cranfield Tests On Index Language Devices," presented April 27th 1967, pgs. 47 - 59, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

Cyril W. Cleverdon and J. Mills, "The Testing Of Index Language Devices," presented February 5, 1963, Chapter 3 - Key Concepts, pgs. 98 - 110, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

David Nichols, et al., Recommendation And Usage In The Digital Library, Technical Report Ref. CSEG/2/1997, Online! 1997, pages 1-15, XP002279577, Retrieved from the Internet
<URL:<ftp://ftp.comp.lancs.ac.uk/pub/reports/1997/CSEG.2.97.pdf>>, retrieved on May 7, 2007

E. Michael Keen, "Presenting Results of Experimental Retrieval Comparisons," Department of Information & Library Studies, University College of Wales, Aberystwyth, SY23 3AS U.K., pgs. 217 - 222

Gerard Salton and C. Buckley, "Term-Weighting Approaches In Automatic Text Retrieval," (received November 19, 1987; accepted in final form January 26, 1988), Department of Computer Science, Cornell University, Ithaca, NY

Gerard Salton and M. E. Lesk, "Computer Evaluation Of Indexing and Text Processing," pgs. 60 - 84, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

Gerard Salton and M.J. McGill, "The SMART and SIRE Experimental Retrieval Systems," pgs. 381 - 399

Gerard Salton and Michael J. McGill, "Introduction to Modern Information Retrieval," Computer Science Series, pgs. 1 - 435, 1983 by McGraw-Hill, Inc., McGraw-Hill Book Company, USA

Gerard Salton, A. Wong and C.S. Yang, "A Vector Space Model for Automatic Indexing," Cornell University, pgs. 273 - 280

Jean Tague-Sutcliffe, "The Pragmatics of Information Retrieval Experimentation Revisited," School of Library and Information Science, University of Western Ontario, Canada, pgs. 205 - 216

U.S. Appl. No.: 10/291,210 (Continued)

Non-Patent Documents (Continued)

- Karen Sparck Jones and Peter Willett (Editors), Chapter 3 - "Key Concepts," pgs. 85 - 92 Found in: Readings in Information Retrieval, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997
- Karen Sparck Jones, "Search Term Relevance Weighting Given Little Relevance Information," pgs. 329-338, (originally located in Journal of Documentation, Vol. 35, No. 1; March 1979, pgs. 30 - 48)
- Lauren B. Doyle, "Indexing and Abstracting by Association - Part 1," pgs. 25 - 38, Santa Monica, CA, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, @ 1997
- M. F. Porter, "An Algorithm For Suffix Stripping," Computer Laboratory, Corn Exchange Street, Cambridge, 313-316
- M.E. Maron and J.L. Kuhns, "On Relevance, Probabilistic Indexing and Information Retrieval," pgs. 39 - 46, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, @ 1997
- S.E Robertson, "The Probability Ranking Principle In IR," School of Library, Archive, Information Studies, University College of London, pgs. 281 - 286
- S.E. Robertson and S. Walker, "Some Simple Effective Approximations to the 2 - Poisson Model for Probabilistic Weighted Retrieval," Centre for Interactive Systems Research, Department of Information Science, City University, Northampton Square, London, ECIV OHB, U.K., pgs. 345 - 354
- Shoshana Loeb, "Architecting Personalized Delivery Of Multimedia Information", Communications Of The ACM, vol. 25, no. 12, December 1992, pp. 39-50, XP002102709
- Thomas Hoffman, et al., "Latent Class Models For Collaborative Filtering", Proceedings Of The Sixteenth International Joint Conference On Artificial Intelligence, IJCAI 99, Stockholm, Sweden, July 31 - August 6, 1999, Online! pages 688-693, XPOO2279578, Retrieved from the Internet <URL:[http://www.cs.brown.edu/\(th/papers/HofmannPuzicha-IJCAI99.pdf](http://www.cs.brown.edu/(th/papers/HofmannPuzicha-IJCAI99.pdf)>, retrieved on May 7, 2004
- Tomek Strzalkowski, "Robust Text Processing in Automated Information Retrieval," Courant Institute of Mathematical Sciences, pgs. 317 - 322
- W. B. Croft and D. J. Harper, "Using Probabilistic Models of Document Retrieval Without Relevance Information," Department of Computer & Information Science, University of Massachusetts, pgs. 339 - 344
- W. J. Hutchins, "The Concept of 'Aboutness' in Subject Indexing," presented April 18, 1977, Chapter 3 - Key Concepts, pgs. 93 - 97, Found in: Readings in Information Retrieval, Edited by Karen Sparck Jones and Peter Willett, Morgan Kaufmann Publishers, Inc., San Francisco, CA, 1997

U.S. Appl. No.: 09/780,962

Title: SYSTEM AND METHOD FOR DETECTING AND VERIFYING DIGITIZED CONTENT OVER A COMPUTER NETWORK

Filing Date: February 9, 2001

Attorney Docket No: 085804-019800

Abstract: A system for detecting digitized content and selecting matches from a master verification database. The detection of digitized content is performed using a verification database which contains a master table of contents identifiers and songprints for corresponding digitized content. A network server is programmed to receive selections of a table of contents identifiers from computers, and to request selections of songprint identifiers from the computers and selects matches from the master verification database.

Patent Documents

<u>Document</u>			<u>Document</u>		
<u>Number</u>	<u>Date</u>	<u>Name</u>	<u>Number</u>	<u>Date</u>	<u>Name</u>
5,751,672	05/12/98	Yankowsky	6,807,632	10/19/04	Carpentier
5,983,176	11/09/99	Hoffert, et al.	6,952,523	10/04/05	Tanaka
5,987,525	11/16/99	Roberts, et al.	2001/0052028	12/13/01	Roberts, et al.
6,021,203	02/01/00	Douceur, et al.	2002/0111912	08/15/02	Hunter, et al.
6,031,795	02/29/00	Wehmeyer	2003/0028796	02/06/03	Roberts, et al.
6,061,680	05/09/00	Scherf, et al.	2003/0046283	03/06/03	Roberts
6,154,773	11/28/00	Roberts, et al.	2003/0135513	07/17/03	Quinn, et al.
6,161,132	12/12/00	Roberts, et al.	2005/0149759	07/07/05	Vishwanath
6,230,192	05/08/01	Roberts, et al.	EP 0955592 A2	04/30/99	Yourlo
6,230,207	05/08/01	Roberts, et al.	EP 1010098 B1	04/15/98	Roberts
6,240,459	05/29/01	Roberts, et al.	EP 1324567 A2	04/15/98	Roberts
6,330,593	12/11/01	Roberts, et al.	JP 2001521642	11/06/01	Roberts
6,405,203	06/11/02	Collart	WO 98/25269	06/11/98	Wehmeyer
6,434,535	08/13/02	Kupka	WO 98/47080	10/22/98	Roberts
6,522,769	02/13/03	Rhoads	WO 00/46681 A1	02/08/00	Coulthard, et al.
6,535,854	03/18/03	Buchner, et al.	WO 02/65341	08/22/02	Reed
6,560,403	05/06/03	Tanaka	WO 03/012695 A2	02/13/03	Roberts, et al.
6,611,812	08/26/03	Hurtado, et al.			

Non-Patent Literature Documents

Adam B. Stubblefield, et al., "A Security Analysis of My.PP3.com and the Beam-it Protocol"

Erling Wold, Thom Blum, Douglas Keislar, and James Wheaton, "Content-Based Classification, Search, and Retrieval of Audio," IEEE MultiMedia, Fall 1996

Internet Papers: Freetantrum: Songprint 1.2, and computer code; www.freetantrum.org

Z. Liu, et al., "Audio Feature Extraction and Analysis for Scene Segmentation and Classification"

U.S. Appl. No.: 09/360,901**Title: GEOGRAPHIC DATA LOCATOR****Filing Date: July 26, 1999****Attorney Docket No: 085804-019900**

Abstract: A geographic information transfer method and system is described. The method includes receiving at a host system server data describing a client computer's connection to a computer network, querying a database to obtain geographic data associated with the received data, and transmitting localized information from the host system to the client computer based on the geographic data. A geographic cookie file may be generated and written to a client computer for future use. The geographic cookie file may be used to transmit localized data or to block transmission of data to a specified geographic location.

Patent Documents

<u>Document</u>			<u>Document</u>		
<u>Number</u>	<u>Date</u>	<u>Name</u>	<u>Number</u>	<u>Date</u>	<u>Name</u>
5,862,220	01/19/99	Perlman	6,161,139	12/12/00	Win, et al.
5,862,339	01/19/99	Bonnaure, et al.	6,182,142	01/30/01	Win, et al.
5,881,234	03/09/99	Schwab	6,205,126	03/20/01	Moon
5,884,312	03/16/99	Dustan, et al.	6,298,446	10/02/01	Schreiber, et al.
5,931,907	08/03/99	Davies, et al.	6,343,317	01/29/02	Glorikian
5,956,482	09/21/99	Agraharam, et al.	6,353,849	03/05/02	Linsk
6,012,098	01/04/00	Bayeh, et al.	6,487,598	11/26/02	Valencia
6,047,268	04/04/00	Bartoli, et al.	6,512,763	01/28/03	DeGolia, Jr.
6,047,320	04/04/00	Tezuka, et al.	6,513,061	01/28/03	Ebata
6,047,327	04/04/00	Tso, et al.	6,538,996	03/25/03	West, et al.
6,065,051	05/16/00	Steele, et al.	6,560,704	05/06/03	Dieterman, et al.
6,070,185	05/30/00	Anupam, et al.	6,677,894	01/13/04	Sheynblat, et al.
6,085,242	07/04/00	Chandra	6,757,740	06/29/04	Parekh
6,097,719	08/01/00	Benash, et al.	2002/0095387	07/18/02	Sosa, et al.
6,102,406	08/15/00	Miles, et al.	AU A53031/98	02/21/97	Mills
6,138,142	10/24/00	Linsk	WO 97/07467	02/27/97	Phelan

Non-Patent Literature Documents

R. Brody, Ph.D., "The Conditions and Consequences of Profiling in Commercial and Governmental Settings," Technology And Society, 1998. ISTAS 98. Wiring The World: The Impact Of Information Technology On Society, Proceedings of the 1998 International Symposium on South Bend, IN, USA 12-13 June 1998, NY, NY, USA, IEEE, US, 12 June 1998 (1998-06-12), pp. 148-154, XP010291443, ISBN: 0-7803-4327-1 *the whole document*

Tej Shah, "Improving Electronic Commerce Through Gathering Customer Data", TCC402 [online] 23 April 1998 (1998-04-23) XP002379874, University of Virginia, USA, Retrieved from the Internet: <URL:http://www.lib.virginia.edu> [Retrieved on 2006-05-08] *the whole document*